BIBLIOGRAPHICAL NOTICES.

An Elementary Manual of New-Zealand Entomology. By G. V. Hudson, F.E.S. With 21 coloured plates. 8vo, 128 pp. London: West, Newman, and Co.

This little book bears a somewhat misleading title. The text consists mainly of a series of short descriptions of the habits and metamorphoses of various New-Zealand insects. This branch of the subject, dealing with the life-histories of insects, is well treated, and the descriptions, being based to a great extent upon the author's own observations, are likely to prove a useful addition to entomological literature. In a Manual of Entomology, however, we look for a better treatment of the anatomy and classification of insects than is to be found in the half-dozen pages allotted to them in the present volume. A few such statements as that "the functions of the antennæ are, at present, extremely doubtful," and the reference to the Malpighian tubes as "biliary vessels," sufficiently prove that, on the physiological side of his subject, the author might with advantage have consulted some good modern text-book of biology or entomology.

The amateur would not miss much, in fact, by passing over the first chapter, which is somewhat curiously headed "General Observations." In the second chapter "on collecting" he will find some useful hints. The remaining chapters, which, with the plates, form almost the entire bulk of the volume, contain the descriptions

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certain respects in close connexion with the statements of K. C. Schneider ("Ein Beitrag zur Phylogenie der Organismen," Biol. Centralbl. xi. Bd., pp. 739–744, Dec. 31, 1891). I expressed these views many years ago in various papers (among others "Die lebende Materie und die Individualität" (in Hungarian), Budapesti Szemle, 1884), and in a series of lectures as *Privatdozent* at the University of Budapest (1888), as also recently in my capacity as a professor at Kolozsvár. A portion of these latter lectures appeared last year in a series of articles in the 'Sitzungsberichten der mathem.-naturw., Sektion des Siebenbürgischen Museumvereins,' under the title of "Die einzelligen Lebewesen von dem Gesichtspunkte der Vielzelligen." A summary of my results in German will be published in the next part of the above-mentioned 'Sitzungsberichte.' Shortly stated, my theory regards the (non-organized) Protoblasts (="Zoen" of K. C. Schneider) as units of the third stage (third power) of matter in general (the first power are the atoms in the elements, the second power the molecules in the chemical compounds), and naturally, as living units of the first stage. The foregoing paper, which reproduces some of the results alluded to, was written immediately after the appearance of Frenzel's article in this Magazine, and only extraneous circumstances prevented me from sending it to the press sooner.

already referred to. These provide interesting reading, and will go far to compensate for the deficiencies of the book in other respects.

The plates seem on the whole well up to the average. In some of the figures we miss that attention to structural detail which was to be expected from an artist who is at the same time the author of a work on entomology. The beetle represented at fig. 2, pl. ii., as having three-jointed tarsi and six-jointed antennæ gives a very erroneous idea of the characters of the family Tenebrionidæ, to which it is said to belong. The neuration of the wings is, in some cases also, less accurate than is desirable in a work where the beginner has to rely almost wholly upon the figures for the identification of the species as well as for a knowledge of the structural characters of families. This leads us to notice that the author has introduced into the book a certain number of species which he refers to as new. He figures but does not describe them, nor does he give any clue as to where descriptions of them may be found. If he wishes to obtain recognition from the systematic entomologist for the names he has given to these species he would do well to publish brief technical descriptions of them.

Notwithstanding the defects pointed out we trust that this work may succeed in the purpose for which it was written, of inducing the youths of New Zealand to take a more active interest in entomological science.

On the Modifications of Organisms. By David Syme. Melbourne: George Robinson and Co. London: Kegan Paul, Trench, and Co.

Some idea of the spirit of this book may be gathered from the following sentence:—"Darwin describes the action of natural selection as preservative and accumulative, but properly speaking it is a purely destructive process. It is heredity and not natural selection which is preservative and accumulative."

In a very vigorous fashion Mr. Syme denies almost every statement which Darwin relied on, maintaining that he "has practically abandoned his theory altogether when he admits that the tendency to vary in the same manner is so strong that whole species may be modified without the aid of any form of natural selection." He asserts that "Darwin's language is wanting in precision, and his definitions and theories are variable and contradictory," even to forgetting his own statement of what natural selection is. The survival of the fittest should be the result of natural selection or the struggle for life; yet Darwin uses the three terms as synonymous. But, according to Mr. Syme, "it is the organism which struggles, not, however, to select this or that variation, but to adapt itself to its environment." Darwin, with good reason (except, perhaps, as to